In the Claims

1. (Cancelled)

2. (Previously Presented) The method according to claim 11, wherein the indicating reactant is a gaseous reactant.

3. (Previously Presented) The method according to claim 11, wherein the indicating reactant is sulfide gas.

4. (Cancelled)

5. (Cancelled)

6. (Cancelled)

7. (Previously Presented) The method according to claim 13, further comprising a step of forming said hydrogen sulfide gas by contacting acetic acid with an aqueous solution of sodium sulfide.

8. (Withdrawn) An apparatus for detecting the presence of a residual amount of corrosion inhibitor on a copper surface subjected to a cleaning solution containing a corrosion inhibitor comprising in combination:

a first receptacle adapted to receive a test piece or pieces that have been exposed to cleaning solution;

a second receptacle placed inside said first receptacle proximate and said test pieces, said second receptacle adapted to receive reactants to produce a hydrogen sulfide gas; and

means to cover said first receptacle and direct said hydrogen sulfide gas at said test piece or pieces.

9. (Withdrawn) An apparatus according to claim 1 including sodium sulfide solution in said second receptacle.

10. (Withdrawn) An apparatus according to claim 9 including means to introduce an acid into said second receptacle prior to covering said first receptacle.

11. (Currently Amended) A method of ~~treating~~ detecting the presence of a corrosion inhibitor on a microelectronic device having an exposed copper surface, said method comprising ~~in sequence the steps of~~:

(a) cleaning said microelectronic device having an exposed copper surface and a sacrificial copper coupon with a cleaning solution comprising a corrosion inhibitor~~, thereby leaving a residual amount of the corrosion inhibitor on the copper surface;~~

(b) rinsing said microelectronic device having an exposed copper surface and said sacrificial copper coupon with a rinsing solution~~, thereby forming a cleaned copper surface~~; and

(c) exposing only said ~~cleaned~~ sacrificial copper coupon ~~surface~~ to an indicating reactant, wherein said exposure ~~that~~ results in a visible color change to ~~the cleaned~~ said sacrificial copper coupon ~~surface~~ within a predetermined time if ~~the residual~~ said corrosion inhibitor has been removed from the copper coupon ~~surface by step (b), and that does not result in said visible color change within the a predetermined time if the corrosion inhibitor has not been removed from the copper surface by step (b); wherein step (c) results in said visible color change~~.

12. (Cancelled)

13. (Currently Amended) The method according to claim ~~12~~ 11, wherein the indicating reactant is hydrogen sulfide gas.

14. (Cancelled)

15. (Cancelled))

16. (Cancelled)

17. (Previously Presented) The method according to claim 7, wherein the step of forming the hydrogen sulfide gas comprises introducing the acetic acid into the aqueous solution of sodium sulfide.

18. (Previously Presented) The method of claim 17, wherein the acetic acid is introduced at room temperature.

19. (Currently Amended) The method according to claim 13, further comprising a step of forming the hydrogen sulfide gas by contacting an acid selected from the group consisting of citric acid, ascorbic acid, hydrochloric acid and sulfuric acid with an aqueous solution of sodium sulfide.

20. (New) The method according to claim 11, wherein said cleaning with a cleaning solution comprising a corrosion inhibitor results in the buildup of a residual amount of the corrosion inhibitor on both the microelectronic device having an exposed copper surface and the sacrificial copper coupon.

21. (New) The method according to claim 11, wherein the rinsing solution comprises deionized water.

22. (New) The method according to claim 11, further comprising drying the microelectronic device having an exposed copper surface and the sacrificial copper coupon subsequent to rinsing and prior to exposing the sacrificial copper coupon to the indicating reactant.

23. (New) A method of detecting the presence of a corrosion inhibitor on a microelectronic device having an exposed copper surface wherein said microelectronic device has been contacted with a cleaning solution comprising said corrosion inhibitor, said method comprising

(a) contacting a sacrificial copper element with the cleaning solution comprising said corrosion inhibitor; and

(b) contacting said sacrificial copper element with an indicating reactant, wherein said contacting with the indicating reactant results in a visible color change to an area of said sacrificial copper element where said corrosion inhibitor has been removed from the copper

element.

24. (New) The method of claim 23, wherein the microelectronic device and the sacrificial copper element are contacted with said cleaning solution comprising said corrosion inhibitor at the same time.

25. (New) The method of claim 23, wherein the sacrificial copper element is contacted with the indicating reactant for a predetermined amount of time necessary to cause the visible color change to the area of said sacrificial copper element where said corrosion inhibitor has been removed from the copper element.

26. (New) The method of claim 23, wherein the microelectronic device and the sacrificial copper element are rinsed with a rinsing solution prior to contacting the sacrificial copper element in step (b).

27. (New) The method according to claim 23, wherein the indicating reactant is hydrogen sulfide gas.

28. (New) The method according to claim 26, wherein the rinsing solution comprises deionized water.